WHAT IS CLAIMED IS:

1. A semiconductor device comprising:

an element of a semiconductor switching element that includes two of a first and second surfaces, wherein a first electrode is exposed on the first surface, a second electrode is exposed on the second surface, and a control electrode is exposed on a control-electrode-exposing surface that is one of the first and second surfaces;

two radiating members between which the element is disposed, wherein the two radiating members are electrically connected with the first and second electrodes, respectively, wherein each of the two radiating members has an inward and outward surfaces, wherein the inward surface is closer to the element than the outward surface;

a mold resin member filling a space between the two radiating members;

an insulating layer formed on at least one of the inward surfaces of the two radiating members; and

a conductive layer formed on the insulating layer and electrically connected with the control electrode and an input portion protruding from the mold resin member,

wherein one of the first and second electrodes is electrically connected with a non-insulating portion of the inward surface where the insulating layer is formed, wherein no insulating layer is formed on the non-insulating portion.

2. The semiconductor device of Claim 1,

wherein the control-electrode-exposing surface of the element faces

the conductive layer.

3. The semiconductor device of Claim 2,

wherein the control electrode is, with the conductive layer, overlapped and electrically connected using a conductive connection member, and

wherein one of the first and second electrodes that is exposed on the control-electrode-exposing surface is, with the non-insulating portion of the inward surface, overlapped and electrically connected using a conductive connection member.

4. The semiconductor device of Claim 1,

wherein the input portion includes a lead terminal for control signals, and

wherein a first end of the lead terminal is protruding from the mold resin member while a second end of the lead terminal is, with the conductive layer, overlapped and electrically connected using a conductive connection member.

5. The semiconductor device of Claim 1,

wherein the conductive layer includes a pattern wiring formed of at least one of copper and copper alloy.

6. The semiconductor device of Claim 1,

wherein the insulating layer is formed of a heat resisting resin.

7. The semiconductor device of Claim 1,

wherein one of the first and second electrodes that is exposed on the control-electrode-exposing surface is overlapped with the non-insulating portion of the inward surface,

wherein the non-insulating portion is formed as an opening of the insulating layer such that in an overhead view an area of the non-insulating portion surrounds an area of the one of the first and second electrodes that is exposed on the control-electrode-exposing surface, and

wherein the one of the first and second electrodes that is exposed on the control-electrode-exposing surface is electrically connected with the non-insulating portion of the inward surface.

8. The semiconductor device of Claim 1,

wherein the element includes a first and second elements, both of which have circuits equivalent to each other,

wherein a first radiating member of the two radiating members includes a certain first radiating member used for the first element and a given first radiating member used for the second element, wherein a second radiating member of the two radiating members is used in common for the first and second elements,

wherein the mold resin member fixes the first and second elements and the first and second radiating members as one body,

wherein the first and second elements are disposed with a gap therebetween in a direction of the surfaces of the first and second elements such that the surfaces of the first element is not overlapped with the surfaces of the

second element, wherein a top and bottom relationship with respect to the first and second surfaces of the first element is reverse to that of the second element, wherein the first and second elements are electrically serially connected with each other,

wherein the non-insulating portion includes a first non-insulating portion that is formed on the inward surface of the second radiating member and a second non-insulating portion that is formed on the inward surface of the given first radiating member,

wherein the control electrode of the first element is, with the conductive layer formed over the second radiating member, overlapped and electrically connected using a conductive connection member, wherein one of the first and second electrodes that is exposed on the control-electrode-exposing surface of the first element is, with the first non-insulating portion of the second radiating member, overlapped and electrically connected using a conductive connection member, wherein one of the first and second electrodes that is exposed on a surface opposite to the control-electrode-exposing surface of the first element is electrically connected using a conductive connection member with the certain first radiating member,

wherein the control electrode of the second element is, with the conductive layer formed over the given first radiating member, overlapped and electrically connected using a conductive connection member, wherein one of the first and second electrodes that is exposed on the control-electrode-exposing surface of the second element is, with the second non-insulating portion of the given first radiating member, overlapped and electrically connected with a conductive connection member, wherein one of the first and second electrodes

that is exposed on a surface opposite to the control-electrode-exposing surface of the second element is electrically connected using a conductive connection member with the second radiating member, and

wherein the second radiating member includes a middle electrode connected with a load including an inductive load.

9. The semiconductor device of Claim 1,

wherein the conductive layer is electrically connected using a bonding wire with the control electrode of the element,

wherein the input portion includes a lead terminal for control signals,

wherein a first end of the lead terminal is protruding from the mold resin member while a second end of the lead terminal is electrically connected using a bonding wire with the conductive layer, and

wherein the boding wires are covered by the mold resin member.

10. The semiconductor device of Claim 9,

wherein the element is one of a plurality of elements,

wherein the plurality of elements are disposed with gaps therebetween in a direction of the surfaces of the elements such that a surface of one element is not overlapped with a surface of an adjacent element,

wherein top and bottom relationships with respect to the first and second surfaces of the plurality of elements are same so that the plurality of elements are electrically parallelly connected mutually, and

wherein the plurality of elements are electrically connected with at least one lead terminal via the conductive layer that branches to the plurality of

elements such that a number of the plurality of elements is more than a number of the lead terminals.

11. The semiconductor device of Claim 1,

wherein at least one of the two radiating members includes a hole member where the mold resin member can be disposed, and

wherein a polyamide resin is applied on a given surface of at least one of the two radiating members, the given surface can be in direct contact with the mold resin member.

12. The semiconductor device of Claim 1,

wherein the control-electrode-exposing surface of the element faces the conductive layer,

wherein the control electrode is, with the conductive layer, overlapped and electrically connected using a conductive connection member,

wherein one of the first and second electrodes that is exposed on the control-electrode-exposing surface is, with the non-insulating portion of the inward surface, overlapped and electrically connected using a conductive connection member, and

wherein the non-insulating portion is protruding from a portion where the insulating layer is formed.

13. The semiconductor device of Claim 1, further comprising:

a first lead terminal whose first end is electrically connected with a first radiating member of the two radiating members and whose second end is

outwardly protruding from the mold resin member;

a second lead terminal whose first end is electrically connected with a second radiating member of the two radiating members and whose second end is outwardly protruding from the mold resin member; and

a third lead terminal that is included in the input portion, wherein a first end of the third lead terminal is outwardly protruding from the mold resin member while a second end of the third lead terminal is, with the conductive layer, overlapped and electrically connected using a conductive connection member.

14. The semiconductor device of Claim 13,

wherein the first and second lead terminals are outwardly protruding from a certain side of the mold resin member, and

wherein the third lead terminal is outwardly protruding from a given side of the mold resin member, the given side is different from the certain side.

15. The semiconductor device of Claim 13,

wherein the first, second, and third lead terminals are outwardly protruding from one side of the mold resin member.

16. The semiconductor device of Claim 13,

wherein the three first ends of the first, second, and third lead terminals that are protruding from the mold resin member are being bent for being appropriate to surface mounting.

17. The semiconductor device of Claim 1,

wherein at least one of the two radiating members is outwardly connected with an additional insulating layer, and

wherein the additional insulating layer is then outwardly connected with an additional conductive layer.

18. The semiconductor device of Claim 1,

wherein the input portion is included in the conductive layer.